



Inequalities and growth: Are there good and bad inequalities?

François Facchini

► To cite this version:

François Facchini. Inequalities and growth: Are there good and bad inequalities?. Public Choice Society, 2007, San Antonio (USA), United States. hal-00270483

HAL Id: hal-00270483

<https://hal.science/hal-00270483>

Submitted on 4 Apr 2008

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

Inequalities and growth: Are there good and bad inequalities?¹

François Facchini

Economist, PH D Paris 1, (CES, MATISSE)

<http://matisse.univ-paris1.fr/facchini>

facchini@univ-paris1.fr

ABSTRACT: This article maintains that we can escape from the deadlock in which the relationship inequalities/growth theory finds itself by using the entrepreneurial theory to explain a country's economic growth. The idea is the following: As with cholesterol, there exist good and bad inequalities. The bad inequalities are the result of rent seeking activities, while good inequalities originate in productive activity or entrepreneurial profit seeking. We could then reinterpret the empiric studies proposed by quantitative economics and show that inequalities harm growth in countries where the institutions incite unproductive entrepreneurial activity when it is good for growth where it is the result of profit seeking entrepreneurial activity.

Key words: Baumol hypothesis, inequalities, growth, property right and entrepreneur

JEL: D31

Growth theory remains fundamentally built upon Solow's model and its extensions. Endogenous growth models are the best example. They moved the economists' attention towards the determinants of evolution of total productivity factors and introduced the idea that a country's long term growth rate is determined by all agents' decisions concerning accumulation of productive factors and knowledge. This renewing of macroeconomic growth theory must not however occult the contribution of institutional theory to the explanation of growth differentials between countries. If countries do not see evolution of their total productivity factor in the same manner, it is because they do not place individuals in the same institutional context. The role of formal and informal institutions in deciding agents' accumulation is henceforth well understood and crosses all of an organisation's development prescriptions such as the World Bank.

Between these two major growth theories interpolates entrepreneurial theory. Neglected for a long time by contemporary economic theory, it progressively regained its place by defining itself as the missing link in institutional growth theory. The idea being that institutions do not create growth. They form play which does or does not incite productive entrepreneurial activity. The distinction between productive and unproductive activity, or profit seeking and rent seeking, is then central in understanding the creation of wealth dynamic in a country. This renovation of growth theories is not without consequence on the analysis of the inequality- growth relationship. Bourguignon (1998) deals with consequences of the endogenous growth theory on the theory of the inequalities-growth relationship. This article proposes a similar study, but by mobilising the entrepreneur and institutional theories.

Initially, the inequalities-growth relationship is the result of empiric observation by Kuznets. This observation began from the hypothesis called Kuznets (1965). Following this hypothesis, the inequalities of revenue distribution evolve in function of the level of a country's economic development, following a curve in inverted U. The inequalities increase at the onset, then stabilise, and finish by decreasing. Kuznets suggested this hypothesis after observing occidental European countries beginning from the XIX century. He concluded from this that the inequalities must be greater in poorer countries than in richer ones. The reasoning was inductive. He also structured all debates on the question of the effect of inequalities on growth. He worked at trying to found a relation in inverted U between an indicator measuring inequalities in a country – a Gini coefficient-and a level

¹ Paper presented to the 2008 annual meeting of the Public Choice Society, St. Anthony Hotel in San Antonio, Texas, USA, march 6 through March 9

of revenue per capita. This way of approaching the inequality-growth relationship was amply criticised (Anand and Kandur 1993a, 1993b), and followed empiric results. When quantitative economy found that inequalities had a negative effect on growth, the theory was not the same as when observation led to thinking that inequalities had rather a positive effect. The absence of robustness of the results led to controversy about the indicators of inequality used, the samples used and the periods chosen. Because despite improvements of basis, the tests remained very sensitive to data, otherwise stated, to the indicators used, to country samples and to periods of observation, no robust conclusion emerged from this abundant literature.

This article does not put forward a new indicator of inequality, and does not add a new test to existing literature. It considers correct the effects of the theory of institutional preliminaries to entrepreneurial productive activity on relationships which create inequalities and growth. It makes the hypothesis that there exist good and bad growth inequalities. This distinction originates in the distinction production-predation of Baumol's model (1990). Inequalities of revenue do not originate solely in captation of profit. They are also the result of captation of private or public rent in the sense of Murphy, Sheilfer and Vishny (1993). There are no effects as such of revenue inequalities on growth. The inequalities originate from productive activity are favourable for growth, while inequalities originating in unproductive activity, on the contrary, harm creation of wealth and prosperity of a nation. The positive or negative relationship between inequalities and growth in production depends upon the way individuals are enriched. If they are enriched by the discovery of a market profit, this has a positive effect on growth and economic progress. If they are enriched by the discovery of a rent, that on the other hand, has a negative effect on growth. It is not inequality as such which has an effect on growth, but the origin of the inequality. This is the thesis of this article which is organised in three parts. The first presents a rapid synthesis of literary results on the effect of inequality on growth (1). The second renews the theory by articulating the theories of institutions and entrepreneurs to explain production growth. It specifies the idea that good and bad inequalities exist (2). The third concludes by suggesting trails for empiric research and an initial analysis from a certain amount of cross-checking of already existing analyses (3).

1 How do inequalities affect growth?

The objective of this section is not to cover all literature developed in this field. Numerous articles presenting syntheses have already suggested this type of investigation (Bourguignon 1998, Aghion, Caroli et Garcia-Penalosa 1999, Cogneau et Guenard 2002, Attanasio et Binelli 2004). It concerns extraction of the main results in order to illustrate the input of the entrepreneurial theory to the theory of the inequality-growth relationship. Generally speaking, the effect of inequality on economic growth is the subject of neither a theoretical consensus nor an empiric consensus. According to the authors, it is either positive or negative, the theory evolving according to the latest empirical studies.

Contradictory theoretical arguments

Initially economic theory was relatively favourable to the thesis whereby inequalities had a positive effect on growth. It put forward three arguments based on the incitation theory. The inequalities are good because they are a means to incite salaried employees to maximise global production in a situation of moral risk (Mirrless 1971). They are good for growth because they favour savings (Kaldor 1956). If the rich save more than the poor and there exists a positive and significant relationship between national savings rate and GDP growth rate, then inequalities serve growth because they favour saving behaviour. They are good because they indirectly support innovation (Galor et Tsiddon 1997). They enable the richer to have enough resources to use research necessary for implementation of new production techniques, new products and/or new ways of organising production, reduce savings rates and limit investment.

These initial theoretical arguments were criticised on several occasions. It has been said first of all that it was improbable that a linear relationship existed between the propensity to save and the revenue levels. After that, it was noted that nothing allowed thinking that the rich were investors. They can

also be consumers of deluxe goods and spend their resources in leisure services. Being rich does not necessarily mean being enterprising or being an investor. We can say, more generally, that these explanations behave as if revenue inequality was a foregone conclusion. There will be rich and poor. Only then do we seek to know what effect this has on growth. Inequality is not thought of as the result of a process. For example, if we follow the Kaldor hypothesis, we can ask ourselves what the effect of individual saving differentials is on personal wealth. Poor who save will perhaps be rich tomorrow. It is then not the saving differential between rich and poor which is at the origin of growth, but the global saving rate.

Aided by empiric studies, theory attempted to explain why inequalities would be unfavourable to growth. Consequences of endogenous growth theory and its rehabilitation of public intervention were felt at this level. Theory mobilisation, market failure and the effects of inequalities on criminality, on electoral and investment choices, considerably renovated economic theory concerning effects of inequality on growth. The effect of inequality on criminality joins the effect of inequality on electoral choices, and more generally, social and political instability which reigns in a country.

Inequalities favour composition of poverty traps and urban ghettos (Durlauf 1994, 1996). They lead to construction of a dual society conflicting in nature. Studying the effects of distribution of growth conflicts in a country (Benhabib et Rustichini 1996) lead then to concluding that inequalities play negatively on growth because they institute a conflicting society and conflicts are not favourable for investment, commerce or growth. Inequalities exacerbate social conflict, make property rights uncertain and thus limit a country's growth. Inequalities also lead the poor to form coalitions to win elections and implement redistribution policies which increase marginal taxation rates and lower investment levels of the rich in productive activity. In democracy, inequality favours a demand for redistribution of revenue by a progressive taxation system which discourages the rich from investment and thus harms growth (Alesina et Robrik 1994). This effect of inequality is however only observed in democracy. In oligarchy, inequality harms growth because it favours political instability. Political instability limits investment and translates the existence of appropriation conflict (Perotti 1996).

To analyse the effect of inequality on the choice of investment, asymmetry of information and externalities theories are mobilised. In this context the asymmetry of market imperfection theory leads to under investment in human capital (schooling lower than optimal level) (Aghion et Bloton 1997 or Piketty 1997) and/or in physical capital (Person et Tabellini 1994). This harms growth. The externality theory justifies implementing public policies which favour education (Bénabou 1993). In Perotti's (1993) model, for example, an individual who invests in education earns more than others in medium and long term. Others also benefit from his competences. Thus he increases average productivity in all of the active population. Inequalities originate from an education differential and this is explained by the level of fertility (Perotti 1996). A couple arbitrates between having many children and investing more intensely in a limited number of children in order to increase their human capital. Families with many children devote less per child and this leads to children who are less qualified with revenues inferior to revenues of qualified persons coming from families with fewer children. The number of children per family thus has a positive effect on the level of inequality and *in fine* a negative effect on growth via investment in human capital. In this spirit, Saint-Paul et Verdier's (1993) article upholds that more public education and a higher rate of taxation generates more rapid growth and less inequality, in as much as it is also distributed within a population.

The second wave of arguments is also open to criticism from a logical point of view. It has however the value of integrating the effect of institutions and particularly political institutions in the analysis of consequences of inequalities on growth. But instead of starting with the effects of institutions on productive activity, it encloses itself within a static analysis which leads often to suggesting *ad hoc* solutions which are sometimes contradictory. It is not easy for example to reconcile the fact that redistribution policies of rich to poor requested by electors are at the origin of weaker growth and the hypothesis according to which inequalities have a positive effect on growth. A decrease in inequalities caused by redistribution policies should, on the contrary, accelerate growth. The reasoning according to which employment and capital markets would lead to sub-optimal investment in human and

physical capital due to the moral risk phenomena which favours the emergence of credit rationing or insufficient training level is exposing itself to the criticism of Demsetz (Nirvana approach). We define a perfect market. We observe that the hypotheses which allow this perfect market to exist are not reunited and we deduce that there is sub optimality on the real markets. In fact none of this is observable. It is an imaginary construction which in no way explains reality. We cannot prevent ourselves either from thinking that the inequalities are not the only cause of social conflict, ghettos and/or political instability. Furthermore, we cannot not highlight hypotheses which under sustain reasoning. For inequalities to be at the origin of social conflict, these last must be judged to be unjust, meaning contrary to social norms in force. If it is the opposite, inequalities do not arouse revolt. This is in fact the meaning of the explanation suggested by Alesina and Glaeser (2004) when they try to render an account of the differences between the United States and Europe. What is important is the origin of the inequalities. If they arise from theft, they violate the sense of propriety and lead to revolt.

An empirical uncertainty

This brief history of the theory of the inequalities-growth relationship follows, in fact, the history of results suggested by quantitative economics. In the 1970s and 80s, transversal data assembled about developing countries would seem to corroborate Kuznets' curve. However the sensitivity of estimates to functional forms tested, and when composing samples, progressively appeared. On transversal data, the curve seemed fairly robust, but on longitudinal data it no longer was (Cogneau and Guenard 2002, p.3).

The theories of the new economical policy which for Bourguignon (1998, p.58) mark the beginning of serious empirical studies also issued from an observation made beginning in the year 1991. It concerned explaining the existence of a negative and significant relationship between initial inequalities and long term growth (Perotti 1992, Person et Tabellini 1994, Alesina et Rodrik 1994). Alesina et Rodrik (1994) based their observations on 40 years for 70 countries, where they combined developed countries (OCDE) and developing countries. They observed that the more the distribution of resources in a country was unequal, the lower the growth rate. They measured the distribution of revenue in a country starting from the third quintile in total revenues. This gave them an approximation of the portion of middle class revenue. Perotti (1992) also found this result with a sample of 72 countries over a fractioned period 1960 – 1985 and 1970 – 1985. His sample was composed of rich and poor countries. He observed an inverse relationship between inequalities and economic growth. Clarke (1995) agreed with this result in the same manner. Birdsall, Ross and Sabot (1995) drew from it a certain number of conclusions about the growth differentials between countries. The South-East Asian growth could be explained by a relatively equal revenue distribution, while weak growth rates in the African, sub-Saharan and Latin American zones could be explained by the existence of great inequalities. Bourguignon (1998, p.48) remained nevertheless more nuanced when he concluded his tour of empirical studies by saying that *“the models which concentrate essentially on long term growth equilibrium have a tendency to find a positive association between equality and growth. But we do not clearly see if this result is really general or is essentially the consequence of a type of externality taken into account in the growth part of the model and the type of mechanism of redistribution considered”*. Barro (1999, 2000) specified this point later by affirming, based on a sample in which he combined rich and poor countries, that the effects of inequalities on growth varied in function of the level of initial revenue. They were negative for poor countries and positive for rich countries. The inequalities harmed growth in the poor countries while they favoured growth (positive effect) in rich countries. No necessity then seemed to appear between inequality and growth. All situations became foreseeable. Barnerjee et Duflo (2000) added to these already confused results the idea that it wasn't inequality which harmed growth, but the variation in inequalities and this whatever the sign.

Debates and controversies within quantitative economics are not over, but the group of economists who work in this field agree for the moment that despite efforts and progress, the statistical results are neither viable nor homogenous. There is no robust relation running from income inequality to per capita product growth or physical and human investment (Cogneau and Guénard 2002, Attanasio and

Binelli 2004, p.107,). One of the explanations put forward by quantitative economics is the weakness of indicators used (Piketty et Saez 2006). By changing the inequality indicator it would be possible to improve coherence of these observations. Piketty et Saez (2006) suggest using taxation administration data in this context. All countries have an income tax and have detailed statistics available on the number of households subject to taxation, the distribution of households by level of revenue, as well as the total revenue and tax paid by each revenue level. It would then be possible to assemble viable databases, over a long period for a large number of countries. In their 2006 article they present their results for the United States, and observe that evolution of inequalities is explained principally by evolution of revenue capital and by the place occupied by managers (*working rich*) in the scale of revenues.

An incentive to change growth theory to understand the inequalities-growth relationship

This rapid tour of literature on the inequality-growth relationship leads us to make a few observations which will then guide us in our reinterpretation of empirical results.

It is interesting, firstly, to observe that while the market failure theory is widely mobilised to explain growth from the presence of asymmetrical information, externalities or scale yield, the existence of State default is ignored. No thought is given for example to the legal origin of credit market default in developing countries. The existence of exchange controls, the absence of freedom for installation of banking firms, the constraints weighing on capital mobility, etc. are also responsible for barriers to entry of the capital market. Sub optimal access to credit for the poor is not necessarily explained by market failures. It can perhaps also be explained by State and Government refusal to ensure application of the principle of free entry.

In the same spirit, it is not obvious that inequalities are sources of political instability and greater criminality. Insecurity about rights is also explained by the absence of rights (De Soto 2006). It is because some States do not recognise property rights of the poorest that they maintain the inequalities. Inequalities and poverty are not causes of criminality and appropriation conflicts, but the effect of bad institutional governance. It is important, lastly, not to forget the revolution operated by Coase (1960) in the externality theory. An external effect is by nature reciprocal. The whole theory of endogenous growth uses the externality notion without integrating the contribution of the property rights theory to the externalities theory. There again it is the institutions which are at the origin of failures, and not the system of market prices.

It is not without usefulness then, to point out that the growth theory, which upholds econometric studies issue of neoclassical macroeconomics and its contemporary extensions around endogenous growth, totally ignores the role of the entrepreneur in the process of creating wealth. This allows us to put forward several criticisms about them. Solow's model and its extensions are not, to begin with, well adapted to analysing and prescribing policies because it is situated within the market institutions when it is the contribution of these institutions which must be studied. (North 1994). The contribution of these institutions to growth is indirect. Institutions favour growth if they encourage productive entrepreneurial activity and turn them away from unproductive activity. We cannot deny that the new political economy has not made an effort to integrate the institutions in its reasoning, but this last had a tendency to reverse the direction of the causalities. The most striking example is the use of the conflict theory by Benabou (1996). Instead of thinking of the inequalities as the result of processes of rent and profit seeking, the model suggests treating the inequalities as the cause for seeking private rent. It is because great inequalities exist that individuals orient themselves toward rent seeking (private rent like theft, robbery, mafia, etc.) The institutional theory separates the inequalities of explanatory variables and makes it a variable to be explained. If we insert the entrepreneur theory in institutional theory, it then becomes obvious that the origin of the wealth is the key to the inequality-growth relationship. The error of classical theory is to consider only one source of inequality, the market, and not to differentiate the effects of inequalities in function of the origin of the enrichment. By taking only the market into account in their reasoning as a source of enrichment, the theoreticians of the new political economy have forgotten that inequalities could also originate in the manipulation

of market institutions (barriers to market entry to protect profits), in obtaining public transfers. The consequences on the theory of inequality-growth relationship are important, because if a man gains wealth because of his political activity or private predation it does not have the same effect on growth as when he gains wealth because of his productive profit seeking activity. We can then deduce that there are good and bad inequalities as there is good and bad cholesterol.

2 Baumol's hypothesis and the presence of good and bad growth inequalities

In order to theorize this idea, we must come back for a moment to the entrepreneur theory and Baumol's hypothesis (1990). The good inequalities would be the result of productive entrepreneurial activity while the bad inequalities would be the consequences of their unproductive activity.

The entrepreneur theory

The entrepreneur theory is not actually unified, but tends to become so (Venkataraman 1997) due to adoption of a very broad definition of entrepreneur. Anyone acting in order to modify the present and reach his objectives in the future is an entrepreneur. This definition as Jesus Huerta de Soto (2000, p.34) reminds us conforms with the original etymological sense of the word. The word comes from the Latin *prehendo-endi-ensum* which means discover, see, perceive, realise, seize. An entrepreneur is above all he who perceives an opportunity for profit, otherwise stated, a mutually advantageous exchange not yet exploited by market agents (Kirzner 1973, 2005). The principle source of a country's growth and its productivity gains is, in this perspective, alertness of the population to profit opportunities not yet exploited by the market (Boettke et Coyne 2003, Holcombe 1998). The neo-Schumpeterian models had a tendency to weaken the role of the entrepreneur, to focus on the cognitive, institutional and cultural conditions of the production of new knowledge. Recent studies by Audretsch, Keilbach and Lehmann (2006) break away from this vision of things and give the central place back to the entrepreneur in the theory of innovation and growth. This leads them on the one hand to contest the idea that it suffices to invest in R&D and universities to favour growth and innovation, and on the other, to renew the already existing controversy which exists between the Kirznerian vision of profit origin and the Schumpeterian vision. The value of their quantitative work, moreover, allows them to put forward a certain number of empirical arguments which again places the entrepreneur (innovator, arbitrageur and speculator) in the heart of the economic dynamic. The object of our article is not, however, to relate the nature of these studies (Facchini 2007).

Once this result acquired, theory turns towards the determinants of entrepreneurial activity. Why do some countries have greater rates of entrepreneurial activity than others? The institutional preliminary, aside from the cultural and psychological preliminaries, plays a determining role. Baumol's hypothesis (1990) intervenes at this point in the reasoning. It enables explanation of a country's growth by the effect of institutions on affectation of individual talent (Murphy, Shleifer et Vishny 1993). The growth differentials between countries are explained by the institutional differences. There are countries who have adopted institutions which favour predation, rent seeking, and countries which on the contrary, have implemented institutions which incite production, profit seeking.

Baumol's hypothesis

The entrepreneur does not always use his activity in service of growth and profit seeking. He can also occupy his resources in unproductive activity. Either the entrepreneur gains wealth by redistribution or predation or he gains wealth by production. Baumol's article (1990) is generally associated with this type of arbitrage. He uses a suggestion from Bhagwati (1982) on this occasion who felt that it was better to avoid the notion of rent and prefer the expression unproductive profit seeking. Sobel (2006) formalises Baumol's hypothesis in a simple form. At the origin of growth there is entrepreneurial activity. The entrepreneurs make a simple calculation; either they furnish a productive effort (pe) or they engage their resources in unproductive activity (ua). Their revenue (Y) is equal to the sum of return on investment in the productive (rp) and unproductive activity (ru).

$$(1) Y = pe.rp + ua.ru$$

In a model where individuals do not all have the same information, the turnover of productive and unproductive activities is not perceived in the same manner. Net entrepreneurial productivity in economics (NEP) is then given by the amount of productive effort minus the amount of unproductive effort

$$(2) NEP = ep - eu$$

Unproductive activity covers all activity devoted to seeking public and private rent. Murphy, Shleifer et Vishny (1993) define these rents. Private rent is defined as acts of piracy, litigation and, more generally, transfers between private individuals (Murphy, Shleifer et Vishny 1993, p.412). Public rent seeking corresponds to a fiscal transfer from the private to the public and to all strategies engaged in by pressure groups to obtain transfers and/or corrupt. Public rent corresponds to this rent seeking theory since Tullock (1967, 1997) studies. In theory, the political entrepreneur perceives, in the legal predation, (Holcombe 2002) an opportunity for gain for himself and all the electors and individuals who support him in his action.

Symmetric to the entrepreneur theory, much quantitative literature tried to evaluate the costs of rent seeking (Posner 1975, Mixon, Laband et Ekelund 1994, Mixon 1995, Mauro 1995, Sobel et Garrett 2002). Theoretically, rent seeking has a negative effect on growth. Empirically, it is often stated that the evaluation of costs in rent seeking leads to thinking that total expense in rent seeking is less than that which had been predicted by the theory of (Sobel and Garrett 2002, p.116). The explanation of this observation was that the preliminary evaluations under estimated the indirect costs of rent seeking and only took direct costs into account. Mixon's (1995) work, then Mixon, Laband et Ekelund (1994) were probably the first to focalise attention on direct costs, by nature rent seeking, otherwise stated, spending in kind engaged in by interest groups to obtain privileges. They thus brought to light hidden costs of rent seeking through limousine services, golf, and number of restaurants. These services generate much more activity in the State capitols than in American cities of similar size. A large part of spending for rent seeking is then made in kind (meals, vacations, trips, leisure, and free golf). To this spending for direct rent seeking according to the expression used by Sobel and Garret (2002, p.116) are added indirect expenses. Interest groups seek to act upon laws by information. They act then *via* the spending in all businesses of communication and knowledge production. Spending in radio, television, publicity, newspapers and/or financing of research institutes have the objective to influence public opinion and indirectly put pressure on the political decision. Their empirical work for the United States confirms their hypothesis and re evaluates the amount of spending for rent and *in fine* its social cost. There then still exists uncertainty about the exact amount of spending in rent seeking.

To direct and indirect costs of rent seeking is added the costs of politicising business life. This consequence of politicization is incitation of individuals to seek the favours of political and administrative powers by any means. Corruption becomes a means of seizing the rent. It adds to the legal action of interest groups on the legislator and to the difficulties encountered by new market entrants. The ultimate consequence of rent seeking is to politicise business and limit the spirit of enterprise, as the entry barriers in business become extremely strong. This thesis is today the subject of widespread empiric work around the measurement of indices of administrative complexity (euro barometer) where the administrative charges weigh upon creators of enterprise. Market entry barriers limit productive activity and entrepreneurs and growth (Nicoletti, Scarpetta and Boylaud 2000). Corruption harms investment. The lack of protection from private extortion and public corruption is responsible for the weakest investment rates and lower growth rate (Mauro 1995, Tanzi and Davoodi 2000). The effect of corruption is even stronger when the economy is supported by small and medium enterprises (Tanzi and Davoodi 2000).

Good and bad inequalities

Baumol's hypothesis then enables distinguishing two types of activity. One favours growth and the other does not. Logically, rent seeking as profit seeking can explain the distribution of revenue. There would then be good and bad inequalities for growth. The indicators of inequality only see one result. Individuals have more or less disparate revenues. They, on the other hand, make no hypothesis on the origin of inequalities. Baumol's hypothesis leads, on the contrary, to making this type of hypothesis. Econometers see nothing stable between inequalities and growth because they do not succeed in taking the causes of inequalities into account. Theft is a means of enriching and a cause of inequalities. It mobilises resources and takes them away from productive use. Inequalities issuing from such a process are then at the origin of a negative effect on growth. *A contrario*, identification of a mutually advantageous exchange (market profit) is also at the origin of gain and inequalities.

Some literature has studied the effect of productive entrepreneurial activity on inequalities and social mobility (Cagetti 2004, Quadrini 1999, 2000). For Cagetti (2004) the entrepreneur's activity is a determining key of investment, saving and inequalities. In the United States, entrepreneurs are a small fraction of the population (about 10%), but hold a large part of total wealth (about 40%). We can thus ascertain the concentration of wealth by saying that 1% of the richest hold 30% of total wealth while 5% hold 50% of it. They also have a higher savings rate than the non entrepreneurs. This observation leads to interrogation about the role of productive entrepreneurial activity in the dynamic of inequalities (Quadrini 1999, 2000). Most of the private fortunes in the United States, and the developed countries, are the result of creation of private companies. The very unequal nations tend to have elevated levels of productive entrepreneurial activity. Lippmann, Davis and Aldrich (2005) suggest a descriptive statistical analysis which validates this suggestion. Without there being necessity we can conclude from this that productive activity is at the origin of inequalities which support economic growth².

Economical theory suggests a theory of unproductive activities via its theory of rent seeking, but does not mobilise it to analyse the inequalities dynamic. In a society of rent seekers (Feudal system in Europe) the wealth of some can explain the poverty of others. The richest in such a society are not rich because they have invested their resources in the creation of a firm, but because they used them in the control of political power and procurement of legal monopolies and entry barriers which create artificial profits. This is what Mises (1958) believed.

In a society of predation it is normal to associate predation and poverty, while in a society where private property rights are respected the entrepreneur gains wealth on the basis of mutually advantageous exchanges. If we leave private income, we can approach income enrichment with several examples. Instauration of legal monopolies (bailiffs, notaries, solicitors, official appraisers (before the European reform) taxis, etc.), the multiplication of public markets (military goods, airplanes, public works buildings) the implementation of production subvention policies (agricultural transfers of the European Union) or the socialisation are examples of individual enrichment impoverishing the community. In most of the liberal professions (the law, medicine, architecture, etc.) entry into self-employment is legally restricted. Legal barriers to market entry favours social reproduction and confines families who are ill informed and without a network in activities where there is less profit.

Chaudhry and Garner's (2007) model of rent seeking describes this inequality by income dynamic fairly well. It illustrates how collusion of political and economic elite can block the process of innovation thanks to the existence of power networks that the innovators, the *outsiders*, do not have. Under such game rules entrepreneurs no longer succeed in gaining wealth thanks to discovery of market profits but thanks to captation of profits artificially created by protective laws favourable to

² We do not address here the question of social mobility which is an important related question. See article of Vincenzo Quadrini (1999).

insiders and unfavourable to *outsiders*. The economic elite of a country block innovation by sharing their profit with political elite in exchange for protection. They thus protect their profit. They prevent the *outsiders* from raising the funds necessary for their industrial adventure and set aside the threat they represent. The *outsiders* can then only reply by proposing a competitive political exchange to the political elite. It means sharing the profits of innovation. Corruption and inequalities develop before the law and revenue. This creates social instability. This instability harms investment and *in fine* production growth. Social conflict no longer finds its origin in the revenue inequalities from profit seeking, but in the inequalities issuing from captation of rent. The economical play favours rent seeking, discourages profit seeking and increases inequality and the feeling of injustice. On one side there are the powerful supported by political power, and on the other the *outsiders*, pushed by the privileged to undertake professions which pay less and are exposed to international competition.

3 Conclusions

The income enrichment theory thus brings the analysis of the inequalities-growth relationship out of the deadlock in which it is by proposing the thesis that the distribution of revenue, equal or unequal, has in itself no effect on economic growth. What is important is the way in which individuals acquire their revenue, goods, and real estate. An equal or unequal revenue distribution can under these conditions be indifferently at the origin of strong or weak growth levels. If an equal revenue distribution is originate in profit seeking, logically it will be favourable for growth. Inversely, an issue of unequal distribution of productive activity will also be the root of strong growth rates. By analysing only the relationship inequality - growth as such we cannot understand the link which unites these two variables. To understand them one must, as we have shown, investigate the revenue's origin. If the equal or unequal distribution of revenues is the result of an intense rent seeking activity, it will be the basis for weak growth rates, and the reverse.

This explains the observation of Cogneau and Guenard (2002) according to which the relationship inequality-growth is undiscoverable. The absence of clear conclusions is not due to the bad quality of data, but to the use of a growth theory which ignores the role of the entrepreneur and the institutions. To understand the dynamic of inequalities we should not look at the amount of capital accumulated by each individual, but the origin of this capital, as at the origin of an enterprise is not a financial expert, but an entrepreneur who discovered an opportunity for profit. It is necessary to rethink everything on this basis. An accumulation of knowledge, for example, which would serve the development of an unproductive activity would not have positive effects on growth. The central question is then to accumulate human, physical or technological capital, why, to capture rent (war, military expenses, etc.) or to seize profit.

Observation of statistical positive or negative relationships between inequalities measured by a Gini coefficient and the growth in GDP makes sense only in relation to conditions in which the entrepreneurs (merchants, politicians, bureaucrats, thieves, etc.) got rich. If the inequalities have their origin in rent seeking there will be a negative and significant correlation between inequalities and growth. On the other hand, if the inequalities come from the discovery of a profit, they will be favourable to growth. Then, the study of the statistical inequality-growth relationship must take account the fact that people became rich by rent or by profit.

This proposition allows reinterpretation of a certain number of results presented in the first section. When Barro (2000) observes that the inequalities have a negative effect in poor countries and a positive one in rich countries, he in fact only observes the effect of rent seeking on growth. When the inequalities are the result of elite collusion to capture exchange gain, this slows down growth. When the inequalities are the result of entrepreneurial productive activity they are favourable for growth. We can specify this reinterpretation and again take Birdsall, Ross and Sabot's (1995) conclusions. They observe that in Africa and South America, the inequalities were great and growth weak. They concluded, incorrectly in our opinion, that the inequalities harmed growth. If the inequalities in these geographical zones originate from rent seeking, it is logical to observe weak growth rate. They slow down the productive activity of their entrepreneurs and favour their unproductive activity by their

institutional choice. Neither the African countries nor the countries of South America, except Chile or South Africa, have good indices of economic freedom. It is then normal to observe that the inequalities correlate with weak growth levels.

We must not either focalise our attention only on market failures as does Bouguignon (1998, p.49) and literature which is connected to it. When an entrepreneur does not succeed in raising money it is not only (or perhaps not at all) because he doesn't succeed in finding any on the banking market, it is because the political and economic elite block innovation and slow down *outsiders'* market entry to protect their rent. For this reason, from an analytical point of view, investigate the origin of the inequalities in access to income. We must also mobilise literature on barriers to entry of political markets (Wohlgemuth 2000, pp.280-285) to understand precisely how the bad revenue inequalities form (originate from rent). These barriers are the means of protecting rent, otherwise stated, to make immutable revenues which are already distinct from revenues issuing from profit seeking, because they are more stable, being less subject to competition play. Instead of gaining wealth by profit and use of rights to be competitive, the political entrepreneur gains wealth by restricting this right. By lifting tax, and instituting customs barriers, by organising markets, regulating contracts, they give themselves the means to protect their profits and to make rent of them. They impoverish the competition (taxes) and thus limit their capacity to implement entrepreneurial projects which could destabilise profits acquired previously. It thus protects an unequal and unfavourable to growth distribution of revenues.

Bibliography :

- Aghion P. and Bolton P. (1997), "A Theory of Trickle-Down Growth and Development", *Review of Economic Studies*, 64, pp.151 – 172.
- Aghion P., Caroli E. and Garcia-Penalosa C. (1999), "Inequality and Economic Growth: The Perspective of the New Growth Theories", *Journal of Economic Literature*, vol.37, pp.1615 – 1660.
- Alesina A. et Glaeser E. (2006), *Combattre les inégalités et la pauvreté. Les Etats-Unis face à l'Europe*. Traduit de l'anglais (américain) par Paul Chemla, *Fighting Poverty in the US and Europe – A World of difference*, Oxford University Press (2004).
- Alesina A. and Rodrik D. (1994), "Distributive Politics and Economic Growth", *The Quarterly Journal of Economics*, 104, pp.465 – 490.
- Anand S. and Kanbur S.M.R. (1993a), "The Kuznets Process and the Inequality-Development Relationship", *Journal of Development Economics*, 40, pp.25 – 40.
- Anand S. and Kanbur S.M.R. (1993b), "Inequality and development, A Critique", *Journal of Development Economics*, 41, pp.25 -40.
- Attanasio O. et Binelli C. (2004), « Inégalités, croissance et politiques redistributives », *Afrique Contemporaine*, automne, pp.107 – 139.
- Audretsch D.B., Keilbach M.C. and Lehmann E.E. (2006), *Entrepreneurship and Economic Growth*, Oxford University Press.
- Banerjee AV and Duflo E. (2000), "Inequality and Growth: What Can the Data Say", *NBER WP7793*.
- Barro R. (1999), « Inequality, growth and investment », *NBER WP 70038*.
- Barro R.J. (2000), "Inequality and Growth in a Panel of Countries", *Journal of Economic Growth*, 5.
- Baumol W.J. (1990), "Entrepreneurship: productive, unproductive and destructive" *Journal of Political Economy*, 98, 5, (1), pp.893 – 921.
- Benhabou R. (1996), "Inequality and Growth", *NBER Working Paper N°5658*, vol.11, pp.11 – 74.
- Benhabib and Rustichini (1996), "Social conflict and growth", *Journal of Economic Growth*, 1, (1), pp.129 – 146.
- Bhagwati J. (1982), "Directly unproductive profit-seeking (DUP) activities", *Journal of Political Economy*, vol.90, 5, pp.988 – 1002.
- Birdsall, Ross and Sabot (1995), "Inequality and Growth Reconsidered: Lessons From East Asia", *The World Bank Economic Review*, 9, (3), pp.347 – 228.
- Boettke P. and Coyne C.J. (2003), "Entrepreneurship and Development: Cause or Consequence", *Advances in Austrian Economics*, 6, pp.67 – 88.

- Bourguignon F. (1981), "Pareto Superiority of Unequalitarian Equilibria in Stiglitz' Model of Wealth Distribution with Convex Saving Function" *Econometrica*, 49, (6), pp.1469 – 1475.
- Bourguignon F. (1990), "Growth and inequality in the dual model of development: the role of demand factors", *Review of Economic Studies*, 57, pp.215 – 228.
- Bourguignon F. (1993), "Croissance, distribution et ressources humaines : comparaison internationale et spécificités régionales", *Revue d'économie du développement*, 4, pp.3 – 35.
- Bourguignon F. (1998), "Équité et croissance économique : une nouvelle analyse?", *Revue Française d'économie*, vol.13, n°3, pp.25 – 84.
- Chaudhry A; and Garner P. (2007), "Do Governments Suppress Growth? Institutions, rent-seeking, and innovation blocking in a model of schumpeterian growth?", *Economics & Politics*, volume 19, march, pp.35 – 52.
- Clarke G.R.G. (1995), "More Evidence On Income Distribution and Growth", *Journal of Development Economics*, 47, (2), pp.403 – 427?
- Cogneau D. and Guenard C. (2002), "Les inégalités et la croissance : une relation introuvable?", Document de travail DIAL / Unité de Recherche CIPRE, DT/2002/03.
- Deininger K. and Squire (1998), « A New Data Set Measuring Income Inequality », *The World Bank Economic Review*, 10, (3), pp.565 – 591.
- Facchini F. (2007), « Entrepreneur et croissance : développements récents », *Revue d'économie industrielle*, n°120, 4^e trimestre, pp.1 – 30.
- Holcombe R.G. (1998), "Entrepreneurship and Economic Growth", *The Quarterly Journal of Austrian Economics*, 1, n°2, summer, pp.45-62.
- Galor O. and Tsiddon D. (1997), "The Distribution of Human Capital and Economic Growth", *Journal of Economic Growth*, 2, (1), pp.93 – 124.
- Grossman H. (1991), "A General model of insurrections", *American Economic Review*, 81, pp.912 – 921.
- Kaldor N. (1956), "Alternative Theories of Distribution", *Review of Economic Studies*, 23 (2), pp.94 – 100.
- Kuznets S. (1995), "Economic Growth and Income Inequality", *The American Economic Review*, 45, (1), pp.1 – 28.
- Lippman S., Davis A. and Aldrich H.E. (2005), "Entrepreneurship and inequality", *Research in the Sociology of Work*, volume 15, pp.3 – 31.
- Mises L. (1958), "Unequality of Wealth and Incomes", in *Essay on Liberty*, published by The Foundation for Economic Education, Irvington-on-Hudson.
- Mixon F.G., Laband D.N. and Ekelund R.B. (1994), "Rent Seeking and hidden in kind resource distortion: Some empirical evidence", *Public Choice*, 78, pp.171 – 185.
- Murphy K.M., Shleifer A. and Vishny R.W. (1993), "Why Is Rent-Seeking So Costly to Growth?", *American Economic Review*, vol.83, n°2, Papers and Proceedings of the Hundred and Fifth Annual Meeting of the American Economic Association, may, pp.409 – 414.
- Nicoletti G., Scarpetta S. and Boylaud O. (2000), "Summary Indicators of Product Market Regulation with an Extension to Employment Protection Legislation", OECD Economics Department Working Papers, n°226, Paris OECD.
- Perotti R. (1996), "Growth, Income Distribution and Democracy: What Data Say", *Journal of Economic Growth*, 1, (1), pp.149 – 187.
- Persson T. and Tabellini G. (1994), "In Inequality Harmful for Growth?", *The American Economic Review*, 84 (3), pp.600 – 620.
- Piktety T. and Saez E. (2006), "The Evolution of Top Incomes: A Historical and International Perspective", volume 96, n°2, mai, traduction français *Problèmes économiques*, "L'évolution des hauts revenus : une perspective historique et internationale", 22 novembre 2006.
- Posner R.A. (1975), "The Social Costs of Monopoly and Regulation", *Journal of Political Economy*, 83, August, pp.807 – 827.
- Quadrini V. (1999), "The Importance of Entrepreneurship for Wealth Concentration and Mobility", *Review of Income and Wealth*, 45, n°1, pp.1-19.
- Quadrini V. (2000), "Entrepreneurship, Saving and Social Mobility", *Review of Economic Dynamics*, 3, (1), pp.1-40, January.

- Saint-Paul G. and Verdier T. (1993), "Education, Democracy and Growth", *Journal of Development Economy*, vol.42, pp.399 – 407.
- Sobel R.S. and Garrett T.A. (2002), "On the Measurement of rent seeking and its social opportunity cost", *Public Choice*, 112, pp.115 – 136.
- Sobel R.S., Clark J.R. and Lee D.R. (2005), « Freedom, Barriers to Entry, Entrepreneurship, and Economic Progress », Southern Economic Association Meeting., texte disponible sur le net, Draft: Januray, 2005 et à paraître dans *Review of Austrian Economics*.
- Sobel R.S. (2006), "Testing Baumol: Institutoinal Quality and the Productivity of Entrepreneurship", Department of Economics, West Virginia University, disponible sur le net. À paraître dans *Journal of Business Venturing*.
- Stiglitz J. (1969), "Distribution of Income and Wealth Among Individuals", *Econometrica*, 37, (3), pp.382 – 397.
- Tanzi V. and Davoodi H.R. (2000) "Corruption, Growth, and Public Finance", *IMF Working Paper*, WP/00/182.
- Tullock G. (1967), « The Welfare Cost of Tariffs, Monopolies and Theft », *Western Economic Journal* 5, June, pp.224-232.
- Tullock G. (1997), "Where is the rectangle?", *Public Choice*, 91, pp.149 – 159. Tullock G. (1998), "Whiuch rectangle?" *Public Choice*, 96, pp.405 – 410.
- Venkataraman S. (1997), "The distinctive domain of entrepreneurship research: An editor's perspective", in Katz J. & Brockhaus R. (eds), *Advances in entrepreneurship, firm emergence and growth*, vol.3n pp.119 – 138, Greenwich, CT: JAI Press.
- Wolgemuth M. (2000), « Political Entrepreneurship and bidding for political Monopoly », *Journal of Evolutionary Economics*, vol.10, pp.273-295.